

WHAT IS CLAIMED IS:

- 1 1. A method comprising the steps of:
2 receiving transport packets;
3 identifying a transport packet as containing audio stream data;
4 comparing the value of a first field in the transport packet to a value of a first field register to
5 determine a first outcome; and
6 determining whether to enable audio stream data related to the transport packet to be
7 received by a system or to discard the transport packet, based upon the first outcome.
- 1 2. The method as in Claim 1, wherein the system is a decoding system and the method
2 further includes the step of further including providing the audio stream data related to
3 the transport packet to a decoding system.
- 1 3. The method as in Claim 2, wherein the audio stream data includes PES audio data.
- 1 4. The method as in Claim 2, wherein the decoding system detects an audio stream data
2 property through a stream indicator included in the audio stream data.
- 1 5. The method as in Claim 4, wherein, the data property includes audio type.
- 1 6. The method as in Claim 4, wherein the data property includes a sampling rate.
- 1 7. The method as in Claim 4, wherein the stream indicator includes start codes.
- 1 8. The method as in Claim 4, wherein the indicators include presentation time stamps.

1 9. The method as in Claim 2, wherein the audio decoding system includes one of an MPEG
2 audio decoder, an AC-3 audio decoder, an AAC audio decoder and a DTS audio decoder.

1 10. The method as in Claim 2, wherein the decoding system includes an I2S formatter.

1 11. The method as in Claim 2, wherein the decoding system is capable of generating an
2 interrupt to control receiving the audio data related to the transport packet.

1 12. The method as in Claim 11, wherein the request is initiated through an application.

1 13. The method as in Claim 1, further including the step of providing audio data related to the
2 transport packet to memory.

1 14. The method as in Claim 13, wherein the step of providing audio data related to the
2 transport packet to memory includes bus-mastering the audio data related to the transport
3 packet to memory.

1 15. A system for parsing audio data associated with a transport packet of a packetized
2 elementary stream, the system comprising:

3 a data bus having a predetermined number of nodes for transmitting a plurality of data
4 words;

5 a transport packet parser having:

6 a storage location having an output coupled to the data bus, the storage location to
7 store a value identifying a first data word, wherein the first data word has an
8 audio packet indicator;

9 a comparator having a first input coupled to the output of the storage location and an
10 output coupled to an audio parser;

11 said audio parser having an enable input coupled to the comparator of the transport packet
12 parser, the audio parser further includes:

13 a first storage location having an output coupled to the data bus, the first storage
14 location to store a first value representing a valid data word having the first
15 audio packet indicator;

16 a second storage location for storing a second value representing a comparable audio
17 packet indicator;

18 a first audio packet filter for analyzing the first value with respect to the second
19 value;

20 a first comparator having an input coupled to the output of the first storage location
21 of said audio parser and an output.

1 16. The system as in Claim 15, wherein said comparable audio packet indicator includes a
2 stream identifier.

1 17. The system as in Claim 15, further including a bus-master controller.

- 1 18. The system as in Claim 17, wherein said bus master controller is to bus-master
2 representative of first data word from said audio parser to memory.
- 1 19. The method as in Claim 15, further including an audio decoding system with an input
2 coupled to said output of the first comparator of said audio parser, to process a
3 representative of the first data word from said audio parser into audio data.
- 1 20. The method as in Claim 19, wherein said audio decoding system includes an elementary
2 stream formatter for processing data associated with the data word into an elementary
3 stream.
- 1 21. The method as in Claim 20, wherein said audio decoding system includes an I2S
2 formatter.
- 1 22. The method as in Claim 19, wherein said audio decoding system is capable of generating
2 an interrupt in response to a request for a particular portion of audio data to be processed
3 by said audio parser.
- 1 23. The method as in Claim 22, wherein said request is generated through an application.
- 1 24. The system as in Claim 19, wherein said decoding system is capable of identifying an
2 audio property of the representative of the first data word through a second audio packet
3 indicator.
- 1 25. The system as in Claim 24, wherein said audio property includes an audio type.
- 1 26. The system as in Claim 24, wherein said audio property includes a sampling rate.

1 27. The system as in Claim 24, wherein said second audio packet indicator includes start
2 codes.

1 28. The system as in Claim 24, wherein said second audio packet indicator includes a
2 presentation timestamp.

1 29. The system as in Claim 19, wherein said audio decoding system is represented through
2 hardware.

1 30. The system as in Claim 18, wherein said audio decoding system is represented through
2 software.

1 31. The system as in Claim 18, wherein said audio decoding system includes one of an
2 MPEG audio decoder, an AC-3 audio decoder, an AAC audio decoder and a DTS audio
3 decoder.